

# The Public in Environmental Public Health Tracking

**Henri Ménager, MPH**  
**Senior Epidemiologist**  
**Kansas Department of Health and Environment**  
**Bureau of Epidemiology and Public Health Informatics**  
**Kansas Environmental Public Health Tracking Program**



**Our Mission: To protect and improve the health and environment of all Kansans.**



# Presentation Overview

- Environmental Health: A working definition.
- The environmental health challenge
  - How it all started
- Contribution of the Kansas EPHT program to environmental health in general
  - What we do
  - What it means for you
  - Resources



---

**Our Mission: To protect and improve the health and environment of all Kansans.**

# What is environmental health?

The discipline that focuses on the interrelationships between people and their environment, promotes human health and well being, and fosters a safe and healthful environment.

But why environmental **PUBLIC** health?



# The Role of the Environment in Public Health

- Globally, each year, 12.6 million of deaths (23%) are attributed to the environmental conditions
- The most vulnerable segments of the population are most at risk
  - the elderly, the very young, and the poor
- Preventing the occurrence of environmental health hazards in or removing them from the environment makes it easier for communities to protect the health of their members

## How does it impact the public?

- Environmental conditions may
  - affect large number of people
  - constitute a source of chronic exposure to toxic substances
  - occur suddenly
  - make people feel powerless and they typically turn to public authorities for protection
  - affect people physically as well as mentally
  - May cause economic

# What Started the Environmental Public Health Tracking Network?

The Pew Environmental Health Commission at the Johns Hopkins Bloomberg School of Public Health found that the current public health system in the United States lacks the basic information that could document possible links between environmental hazards and chronic disease.

In response to this gap, the commission proposed and developed a conceptual framework for an environmental health tracking network.

America's Environmental Health Gap: Why the Country Needs a Nationwide Health Tracking Network



The Center for Environmental Health Tracking

[http://www.jhsph.edu/research/centers-and-institutes/center-for-excellence-in-environmental-health-tracking/tracking\\_history.html](http://www.jhsph.edu/research/centers-and-institutes/center-for-excellence-in-environmental-health-tracking/tracking_history.html)



# America's Environmental Health Gap: Why the Country Needs a Nationwide Health Tracking Network

The report was written in September 2000 and sponsored by the Pew Environmental Health Commission at the Johns Hopkins School of Hygiene and Public Health. It went into great detail to provide technical recommendations, background, infrastructure, conclusions, and future directions for the development of a nationwide environmental health tracking network.

This report was instrumental in the development of the Centers for Disease Control and Prevention (CDC) National Environmental Public Health Tracking Network.



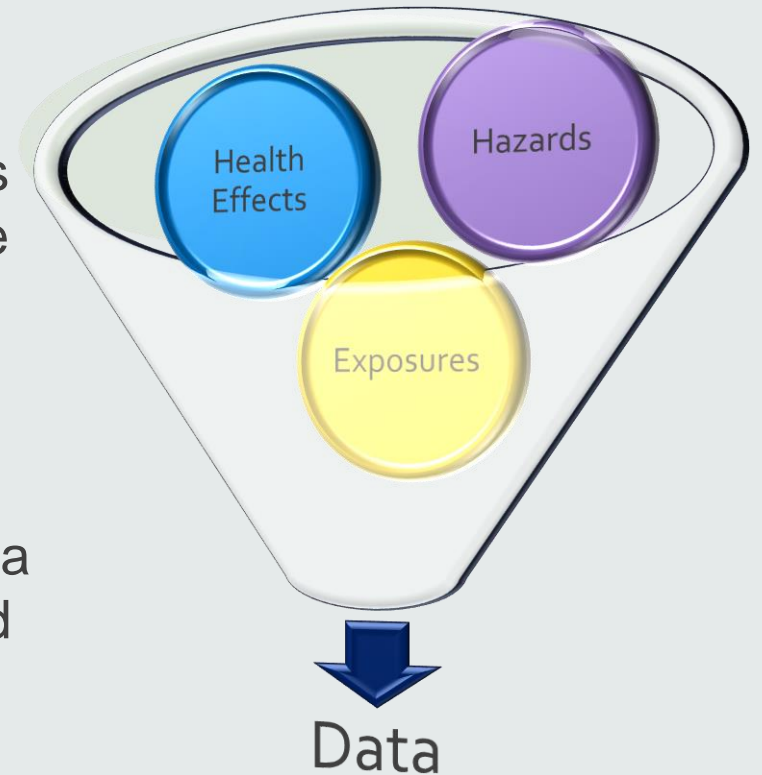
The Center for Environmental Health Tracking

[http://www.jhsph.edu/research/centers-and-institutes/center-for-excellence-in-environmental-health-tracking/tracking\\_history.html](http://www.jhsph.edu/research/centers-and-institutes/center-for-excellence-in-environmental-health-tracking/tracking_history.html)

# What is environmental public health tracking?

Environmental Public Health Tracking is the ongoing collection, integration, analysis, interpretation, and dissemination of data on environmental hazards, exposures to those hazards, and health effects that may be related to the exposures. The goal of tracking is to provide information that can be used to plan, apply, and evaluate actions to prevent and control environmentally related diseases.

Environmental public health tracking utilizes different types of data to examine information about the interaction between the environment and human health. The Tracking network contains data on some environmental hazards and exposures, health effects, and other relevant data.





# Health Effect Tracking

Health information data is collected for surveillance of many different health conditions. In order to conduct environmental public health tracking, health data must be evaluated in the context of other data such as hazard data and exposure data.

Health data alone will only provide a portion of the necessary information about how an illness may be related to an environmental hazard or exposure. Connecting a health effect with an environmental problem is difficult considering all of the many ways that individuals interact with their environment. But compiling and tracking data over periods of time help us to build our knowledge and is a way to share information with partners, academia, the public, and you.



# Environmental Hazard and Exposure Tracking

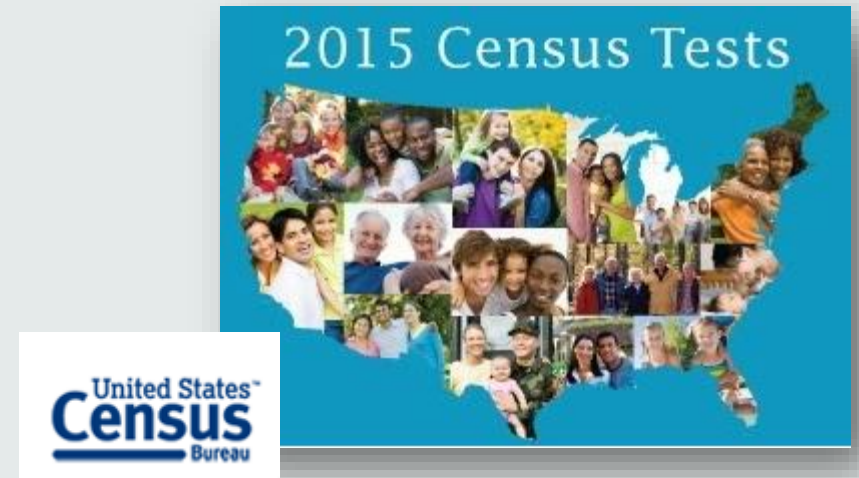
An environmental health hazard is a substance that has the ability to cause an adverse health event. This includes physical, chemical, and biological factors that are external to a person. The presence of a hazard doesn't necessarily mean that health problems will occur, but it may cause a disease or other adverse health effect. An example of an environmental health hazard is lead paint in a home.

Exposure is contact with a contaminant or harmful substance. Exposure data can indicate the levels of chemicals in a person. The level of contaminant alone does not indicate that the contaminant caused their disease. An example of an exposure data is the blood lead level in a person.



# What other data do we use in environmental public health tracking?

Other data sources are also important to assemble additional information that factors into environmental health. Data about the population enhances the exploration of potential influences and risk factors for disease and other health outcomes. An example is census data which can provide information about a population's income, race, occupation, age of housing, and other demographic information.



<http://www.census.gov/2015censustests>

# The National Environmental Public Health Network

The Centers for Disease Control and Prevention (CDC) supports the National Environmental Public Health Tracking Network. The National Environmental Public Health Tracking Network is a system of integrated health, exposure, and hazard information and data from a variety of national, state, and city sources.

The CDC provides grant funding to health departments in 25 states and one city to build and implement local tracking networks. The tracking networks data systems feed into the national environmental public health tracking network.



Centers for Disease Control and Prevention

CDC 24/7: Saving Lives. Protecting People.™



# The National Environmental Public Health Network

## National Environmental Public Health Tracking Network

[Glossary A-Z](#)[CDC A-Z](#)[Tracking A-Z](#)

### TRACKING: ADVANCING THE PRACTICE

Read recent articles from the *Journal of Environmental Health* highlighting the work of Tracking



[Click to learn more!](#)

The National Environmental Public Health Tracking Network (Tracking Network) is a system of integrated health, exposure, and hazard information and data from a variety of national, state, and city sources.

On the Tracking Network, you can view maps, tables, and charts with data about:

- chemicals and other substances found in the environment
- some chronic diseases and conditions
- the area where you live

[Learn more about the Tracking Network](#)

[Explore Tracking Data](#)

### Environments



- Pesticide Exposures
- Climate Change **NEW**
- Outdoor Air
- More

### Health Effects



- Asthma
- Cancer
- Childhood Lead Poisoning
- More Health Conditions

### Population Health



- Population Characteristics
- Health Impact Assessments **NEW**
- Children's Environmental Health
- More

### EXPLORE TRACKING DATA



View & download all data  
Maps • Charts • Tables

**GO**

### INFO BY LOCATION



Data for you!  
View data by county or zip code

**GO**

### STATE & LOCAL TRACKING PROGRAMS



Websites  
Grantee Profiles  
Data Highlights

**GO**

### Quick Links

- Home
- About Tracking Program
- State & Local Tracking Networks
- Success Stories
- Indicators & Data
- Print Page
- Bookmark and Share
- CDC on Facebook
- CDC on Twitter

### Tracking Hot Topics

National Public Health Week

Cancer and the Environment

CDC's Cancer Prevention and Control

New Tracking Data API

View our Tracking Success Stories to learn how Tracking is making a difference across the U.S.

### Resources

- Communication Tools
- Training
- Join our List-serv
- Document Library
- Quick Reports
- Technical Notes
- Scientific Publications
- Tracking API Help

### Contact Us:

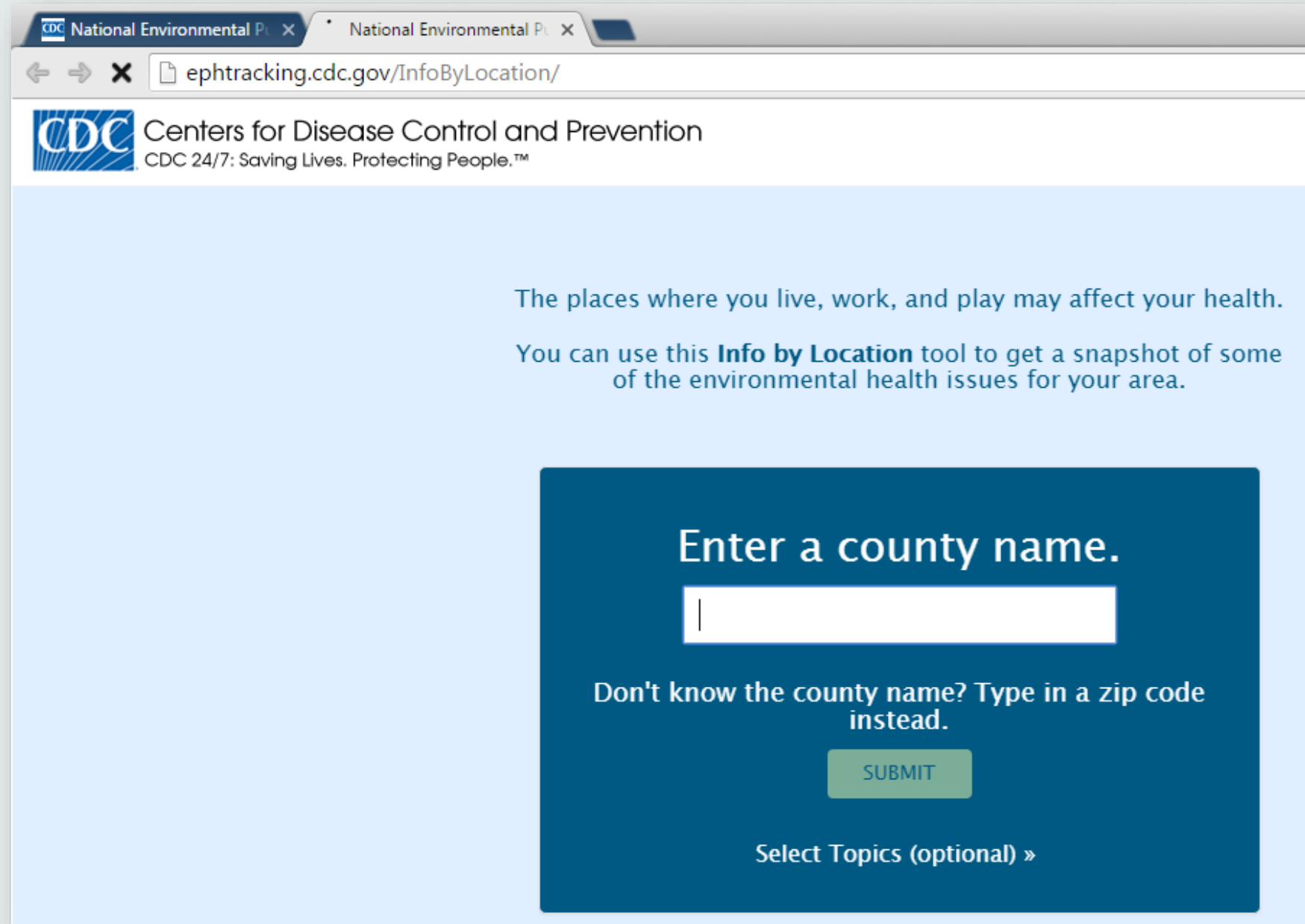
Centers for Disease Control and Prevention  
1600 Clifton Rd  
Atlanta, GA 30333

## CDC EPHTN Website

<http://ephtracking.cdc.gov>

# The National Environmental Public Health Network

## Info by Location Tool



The screenshot shows a web browser window with two tabs labeled "National Environmental P...". The address bar displays "ephtracking.cdc.gov/InfoByLocation/". The page header features the CDC logo and the text "Centers for Disease Control and Prevention" and "CDC 24/7: Saving Lives. Protecting People.™". The main content area has a light blue background with the text: "The places where you live, work, and play may affect your health. You can use this **Info by Location** tool to get a snapshot of some of the environmental health issues for your area."

Enter a county name.

Don't know the county name? Type in a zip code instead.

[SUBMIT](#)

[Select Topics \(optional\) »](#)



# The Kansas Environmental Public Health Network



**Kansas**  
Department of Health  
and Environment

AD ASTRA PER ASPERA

Home What's Trending Glossary FAQs Contacts Training Sign In

**Kansas**  
Environmental Public Health Tracking

Acute Myocardial Infarction  
Air Quality  
Asthma  
Birth Defects  
Blood Lead Poisoning  
Blue-Green Algae  
Cancer  
Carbon Monoxide Poisoning  
Community Health  
Drinking Water  
Hospitalizations  
Investigations  
Occupational Health  
Pesticides  
Radon  
Vital Statistics / Reproductive Health  
Weather & Public Health

Single Expand Multiple Expand Full Expand

**Public Health Alert**

**EPHT Overview**

There is a fundamental gap in our knowledge of how the environment affects health. Chronic diseases, such as asthma, cancer, diabetes and heart disease account for over 70 percent of deaths in the United States. While links between certain chronic diseases and the environment have been reported, many of these connections remain unclear. Information that is available through the Environmental Public Health Tracking Network can be used to help identify hazards and risks that can be alleviated or avoided to create a better quality of life for Kansas families.

Through a grant from the US Centers for Disease Control and Prevention (CDC) the Kansas Environmental Public Health Tracking Program has developed applications to collect, analyze, interpret and publish environmental health data indicators as part of the National Environmental Public Health Tracking Network.

The tracking network can help to identify threats to the health of Kansans posed by the environment and will improve how KDHE responds to those threats. Individuals are able to access critical environmental health information that can assist them to make informed decisions and take action if necessary to protect themselves and their families. The network is part of a national initiative led by the CDC and includes a web-based system to track key environmental hazards and health problems across Kansas. Timely, integrated environmental and health data at the federal, state and local levels via the national and state tracking networks provide a basis for early notification of pending environmental threats or unexpected events.

## KS EPHTN Website

<https://keap.kdhe.state.ks.us/Ephtml/>

# Why a national AND a local Public Health Tracking Network?

- National Network
  - The world is interconnected
  - No need to reinvent the wheel
  - The power in numbers
- Local Network
  - All public health is local
  - Keep the focus on public health actions
  - The public is an integral part of PUBLIC Health Tracking

# What are we tracking?

## Health Effects

Acute Myocardial Infarction  
Asthma  
Birth Defects  
Cancer  
Carbon Monoxide Poisoning  
Blood Lead Poisoning  
Community Health  
Hospitalizations  
Occupational Health  
Vital Statistics/Reproductive Health

## Environmental Hazards & Exposures

Air Quality  
Blue-Green Algae  
Drinking Water Quality  
Pesticide exposures  
Radon  
Weather & Public Health



# Tracking and Personal Information

All laws and policies that protect the privacy of health records and other personal information are followed by the tracking program at the state and federal level. Data that could be used to identify and individual are not shared with the CDC.

Health data is not used for anything other than the specific public health reason that it was shared for within the agreement signed by the data owners. And only those that have been authorized are able to access the data. Information and data is used to inform public health and yet protect private details about an individuals health.



# Epidemiology and EPHT

- Air quality
  - Annual average cancer risk estimates per million for benzene 2005 (KS: 5.1 – CO: 11.6)
- Asthma
  - Age-adjusted rate of hospitalization for asthma per 10,000 population 2013 (KS: 6.9 – MO: 10.7)
- Birth defects
  - Prevalence of Trisomy 21 per 10,000 live births to mothers less than 35 years of age at delivery for the 2008-2012 period (KS: 4.6 – UT: 7.4)
- Cancer
  - Age-adjusted incidence rate of lung cancer per 100,000 population 2012 (KS: 56.5 - US: 60.3)
- Childhood blood lead
  - Percent of children born in the same year and tested before age 3 with blood lead levels of 10 µg/dL or greater (KS: 0.58 – OK: 0.14)

# Surveillance activities

- Chronic disease surveillance
  - Asthma, Cancer
- Infectious disease surveillance
  - Vector borne diseases
  - Foodborne diseases
- Syndromic surveillance
  - Extreme weather-related ED visits
- Disaster epidemiology



Who is part of the surveillance network?

- All jurisdictions

# The Public in Environmental Public Health Tracking

- Current initiatives
  - Extreme weather shelter project
  - Extreme heat toolkit
  - Blue-green algae surveillance

# What the Data means and how to use it

- Data needs for
  - Local health departments
  - Local emergency preparedness departments
  - Universities
  - Schools
  - Municipalities
  - Residents
  - Others

# Resources

- <http://ephtracking.cdc.gov/showHome.action>
- <http://kic.kdheks.gov/>
- <https://keap.kdhe.state.ks.us/Ephtm/>
- <http://www.kdheks.gov/health/index.html>

# Contacts

**Henri Ménager, MPH**  
[hmenager@kdheks.gov](mailto:hmenager@kdheks.gov)  
**785-296-3067**

[ksepht@kdheks.gov](mailto:ksepht@kdheks.gov)

# Questions?



**Our Mission: To protect and improve the health and environment of all Kansans.**